

Flight Scientist Report
Friday 03/01/2020 ACTIVATE RF14

Flight Type: Statistical Survey Flight – Clouds

Flight Route: ATLIC-northeast point-southeast point-ZIBUT-ATLIC-KPHF

Special Notes: Stat survey with focus on working downwind of the centerpoint of first flight and then coming back to KPHF directly in order to maximize range on the downwind leg (i.e., retracing steps back would take long and limit downwind distance)

King Air

- All fine

Instruments:

Fine

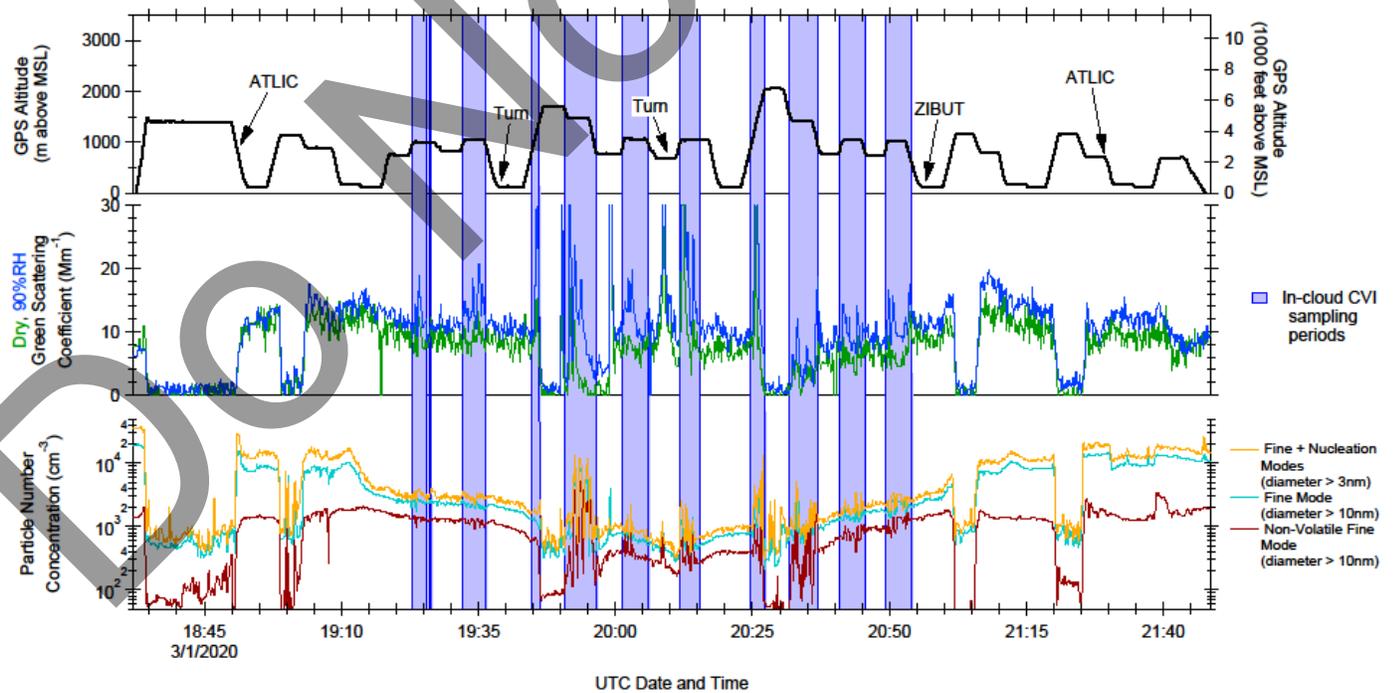
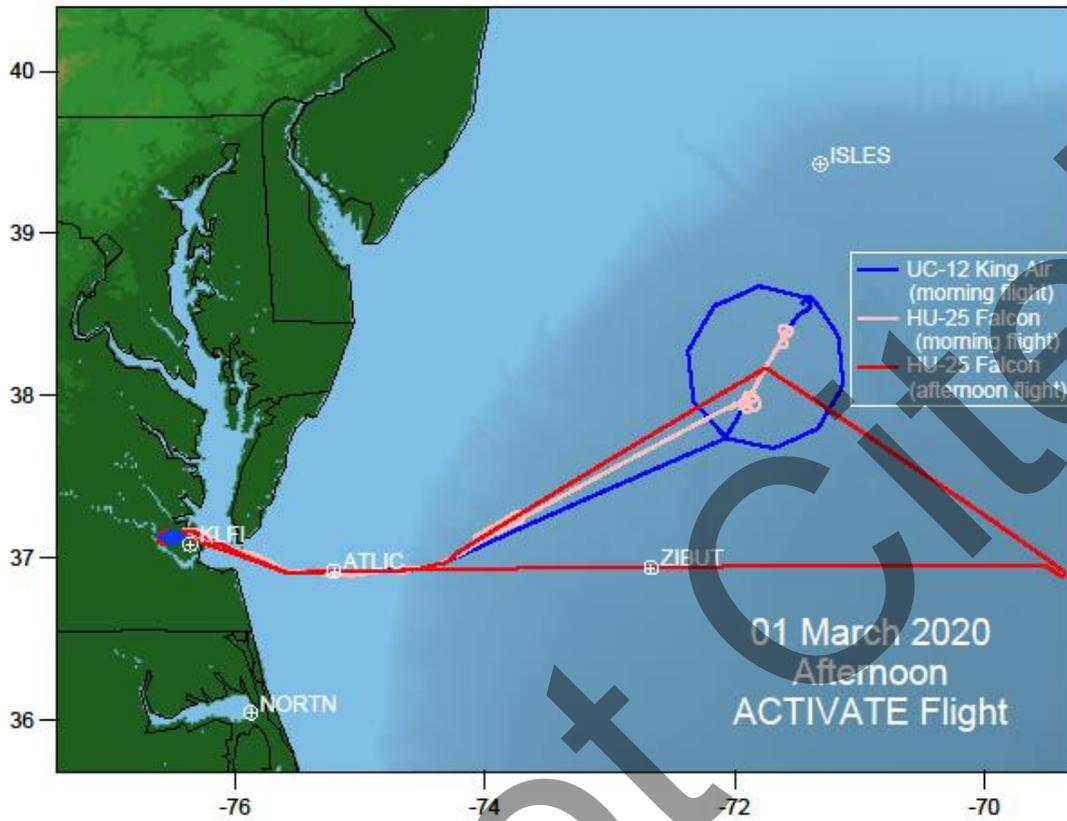
Falcon

- The “cloud evolution” leg had a transition towards having showers at the end of the leg with what may have been freezing drizzle and rimed ice. Past the endpoint of the evolution leg the satellite imagery shows transition to open cell structure

Instruments:

Fine

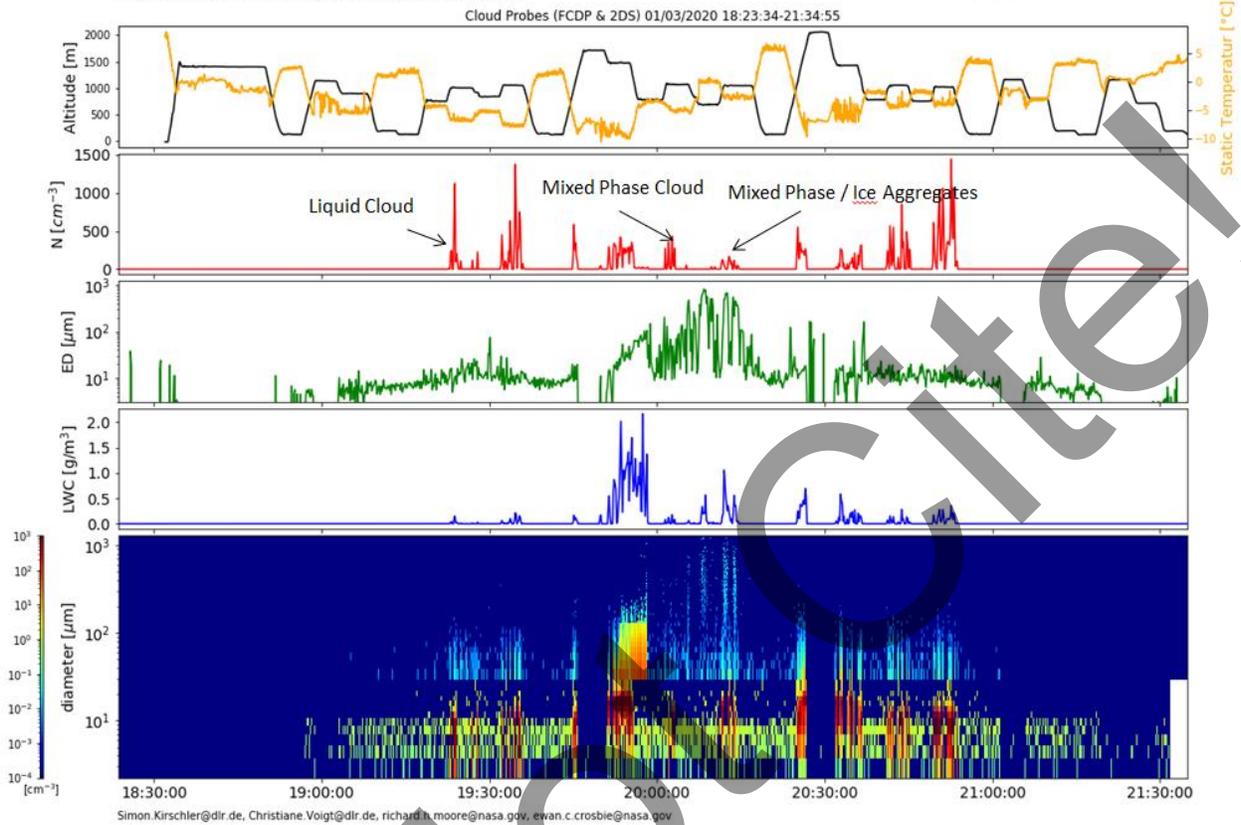
Rich Moore Quicklook Images:



Quicklook ACTIVATE Cloud Probes (FCDP & 2DS)

preliminary data, only for quicklook use

Simon Kirschler, Christiane Voigt, Richard Moore, Ewan Crosbie

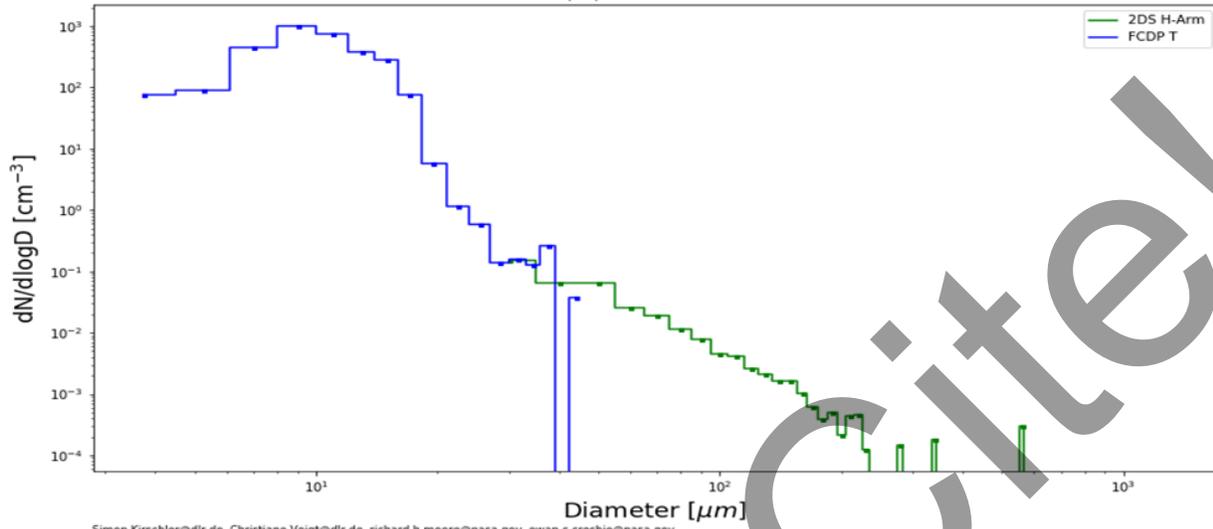


PSD ACTIVATE

preliminary data, only for quicklook use
Simon Kirschler, Christiane Voigt, Richard Moore, Ewan Crosbie



PSD 01/03/2020 20:25:00-20:25:50



Mixed Phase Cloud: 20:02:21

Liquid Cloud: 19:26:07

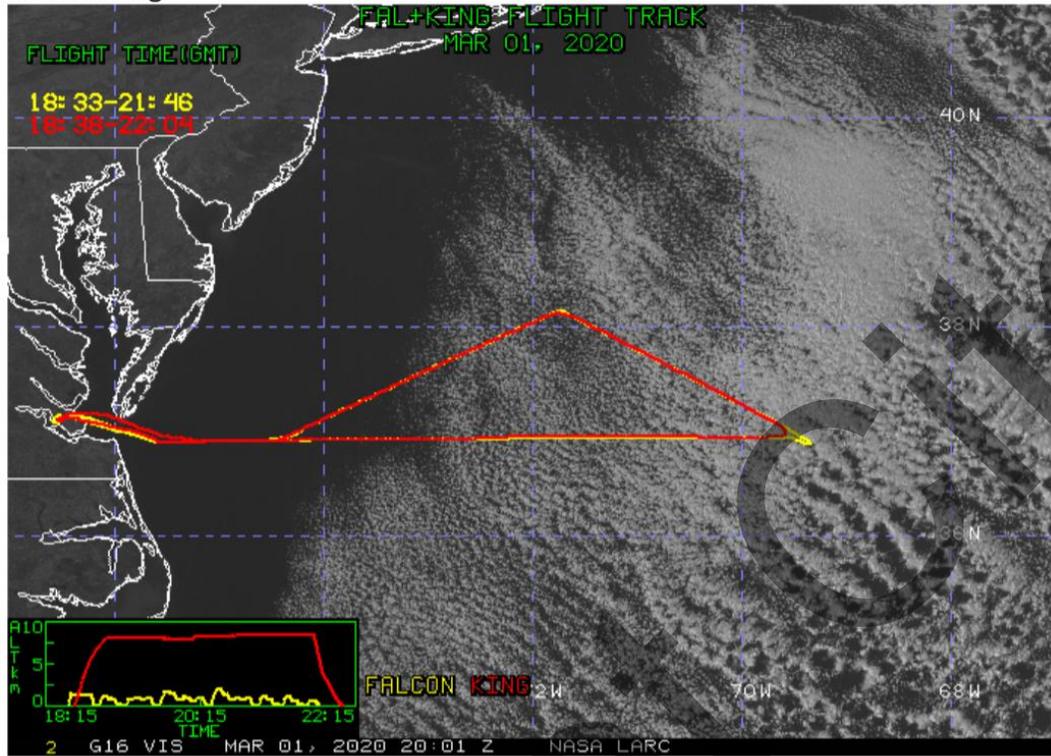
Mixed Phase / Ice Aggregates: 20:08:35



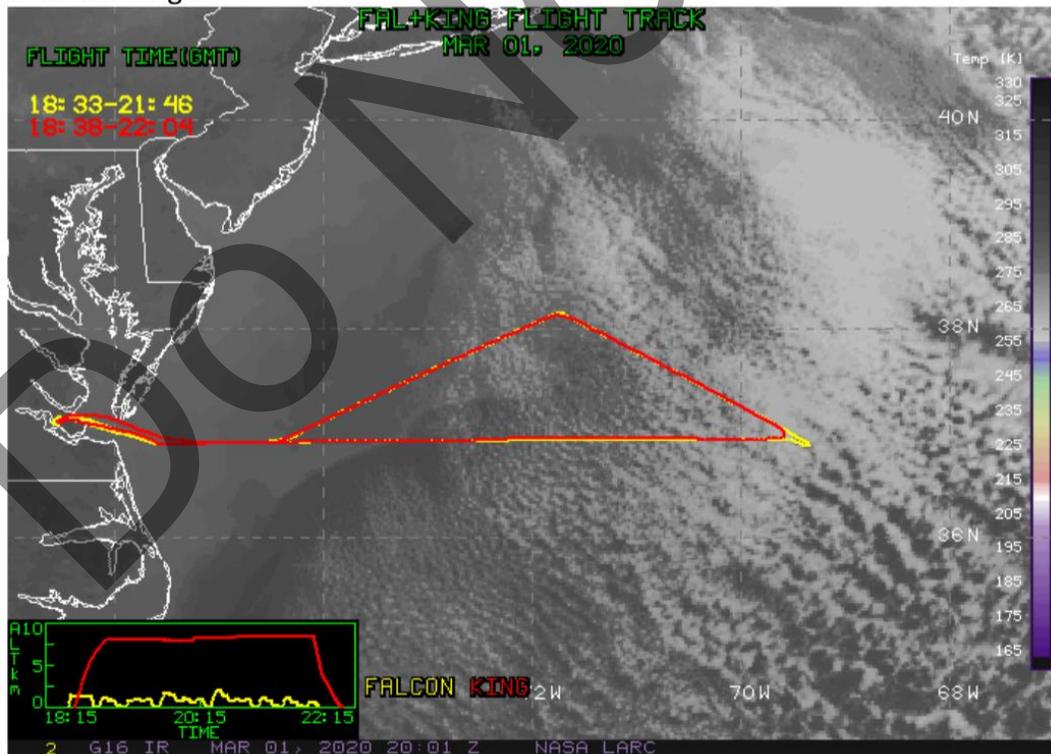
Do Not Cite!

NASA-LaRC Clouds Group GOES-16 Quicklook Images for Flight 14, 20:01 UTC Mar 01, 2020
(near middle of flight)

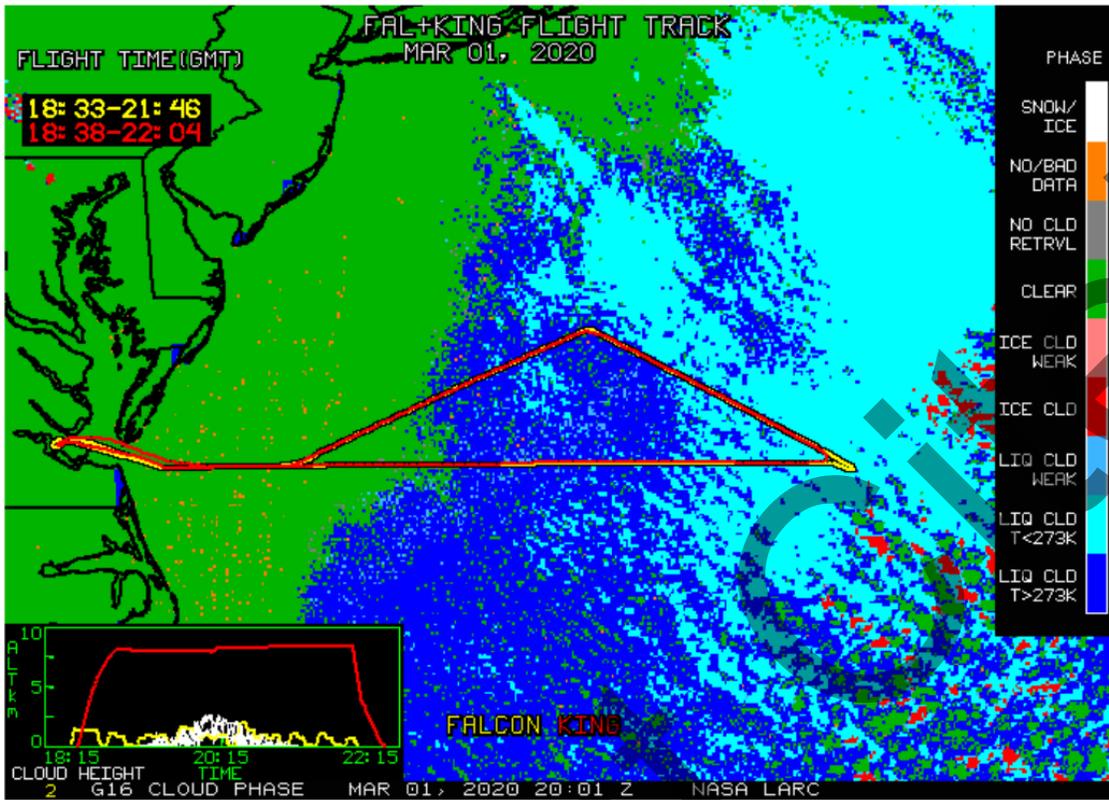
Visible Image



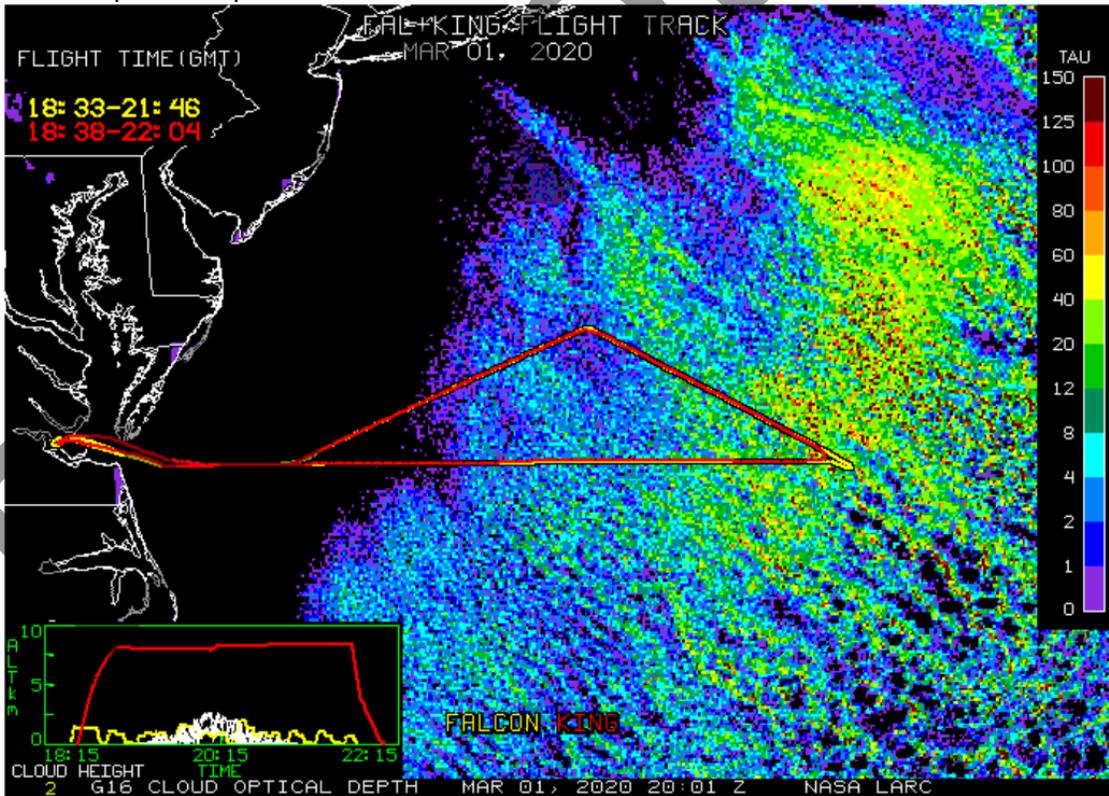
Infrared Image



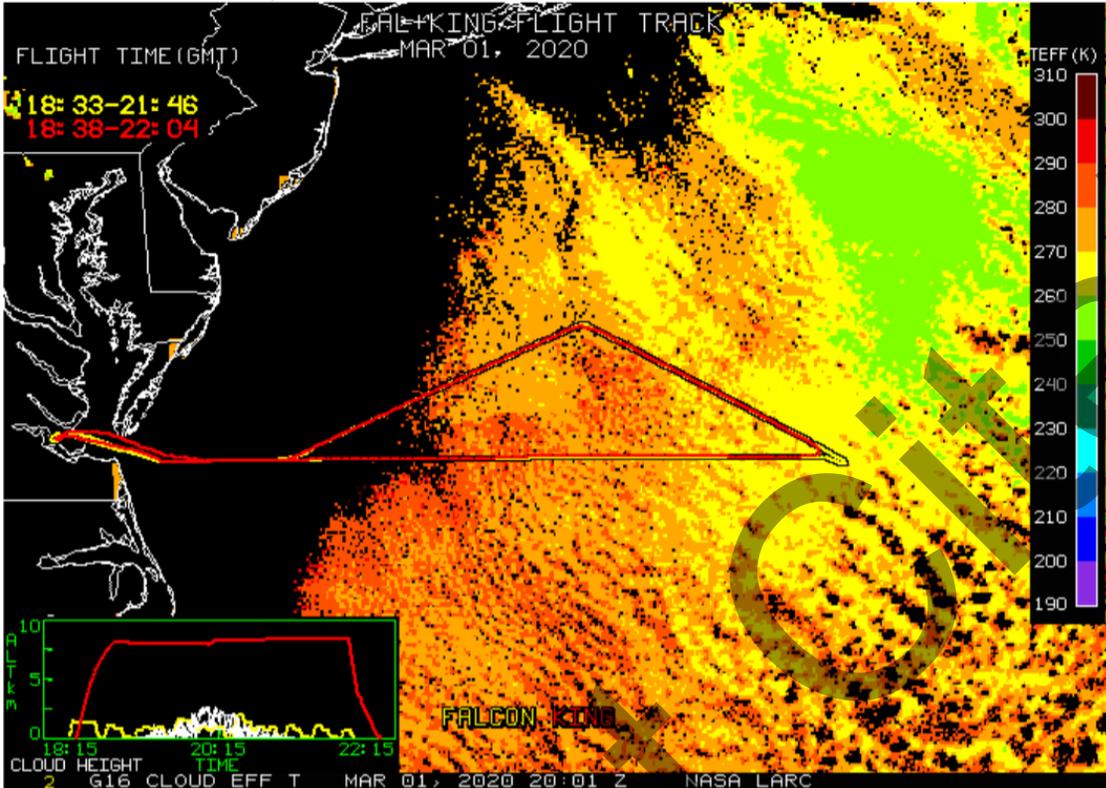
Cloud Phase



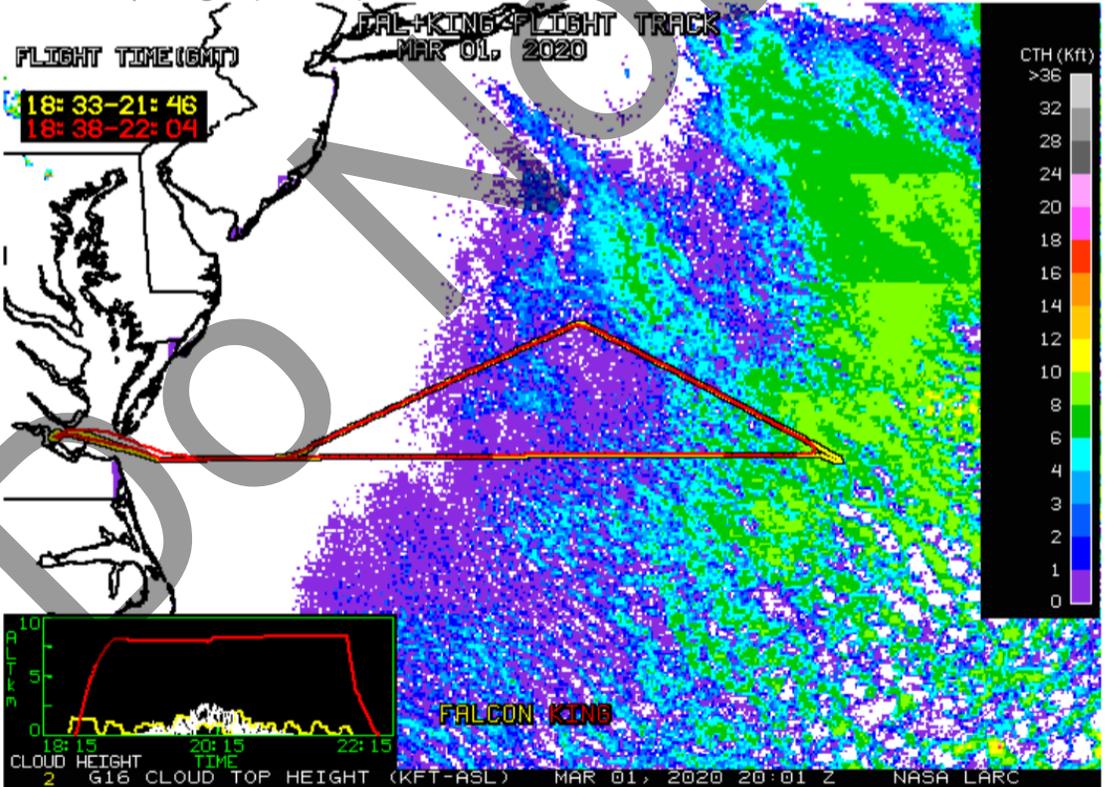
Cloud Optical Depth



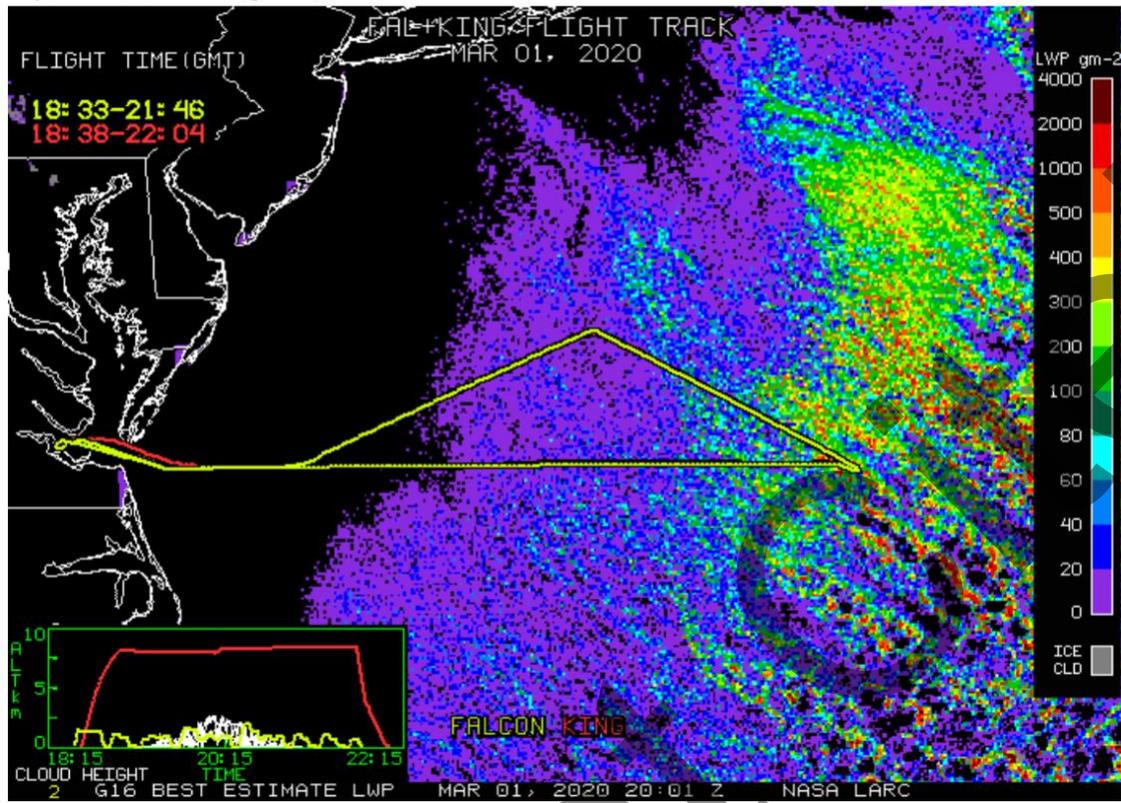
Cloud Effective Temperature (K)



Cloud-Top Height (Kft-ASL)



Liquid Water Path (gm-2)



Cloud Droplet Number Concentration (cm-3)

